

Industry Sector Analysis

Sub-sector: Biometric Identification Devices

Summary

Potential for the biometrics industry sector in the Italian market is good as the market is largely untapped. Market interest is growing as a result of terrorist acts. U.S. producers of biometric technology hold the largest market share. New-to-market U.S. exporters should take advantage of the great and growing number of opportunities as Italy expands its use of biometric devices. This information in this report was gathered through interviews with industry experts and local contacts, and by consulting resources available on the Internet.

Market Overview

On March 31 of this year, the Italian Government created a new working group to establish guidelines for the use of biometric technologies in the public sector. A competence center was also established to assist public administrations in the biometric area.

The recent introduction of international programs that involve the use of biometrics, including the US Visit and electronic passport programs, have essentially introduced and exposed the Italian market to this type of technology. The market for biometrics is quite promising in Italy and several indicators point to a growing public acceptance of the use of this technology, notwithstanding particularly stringent privacy laws in Italy.

One of the indicators of growing interest in the use of biometrics is proven by the fact that Italy in 2001 introduced the possibility of using biometrics for accessing. Italy is probably the only European country that allows the registration of fingerprints in banking institutions.

Italy was among the first countries worldwide to announce the project for the electronic passport with biometric features, and a prototype was presented to President Berlusconi in December 2003. The new e-passport, which will be equipped with a microchip containing a facial image and fingerprints, should officially be ready for widespread use by September 2005. The Italian government says the passport will not only help curb terrorism and illegal immigration, but will make life easier for millions of people going through security checkpoints at Airports. The European Union (EU) directive regarding this issue should be presented by the end of this year. Countries, like Italy, in the Visa Waiver Program are mandated by the USA PATRIOT Act to certify that they have programs to issue their nationals machine-readable passports that incorporate biometric identifiers that comply with standards established by the International Civil Aviation Organization (ICAO).

Italy will also be among the first European countries to introduce a national identity card (carta d'identità elettronica, or CIE) equipped with fingerprints. CIE identification cards have already been issued to citizens in selected cities, and full implementation and distribution to citizens will occur within the next one to two years. These secure cards have been developed in close cooperation to meet the stringent requirements for the CIE card. The card is based on a secure optical memory card manufactured by the U.S. corporation Drexler Technology, and is then

further processed in Italy where an IC chip is added. Every card must undergo an extensive security authorization and personalization process prior to the citizen receiving the card, including multiple levels of government-controlled approvals between each stage of card production and issuance. The Italian government indicates that the card may be used for healthcare, voting, social security, transportation and education.

EU Perspective

Since Italian actions in the field of biometrics are strictly harmonized with EU directives, it is important to take a look at the European framework. The main objective of initiatives taken by the Commission is to ensure that EU member states act in unison, thus avoiding diverging approaches in order to establish an integrated system of security measures.

Recently the European Commission adopted three proposals on the introduction of biometric identifiers into the uniform format of visas, residence permits for third country nationals and, eventually EU citizen's passports. These proposals have been formulated not only to fight the growing number of falsified travel documents, but also to combat identity fraud, visa shopping and mistaken identifications. On February 18 of this year, the Council agreed to introduce in a second step, biometric identifiers into the Visa Information System (VIS). This will be essential to facilitate the fight against fraud, to prevent "visa shopping", to facilitate border checks, and to assist in the identification and documentation of undocumented persons and to simplify the administrative procedures for returning citizens of third countries. The VIS will be one of the largest biometric system in the world and will, over a period of five years, potentially hold 70 million biometric records of all foreign nationals who apply for a Schengen visa.

Interoperability of systems will also support the efforts of the still young and fragmented EU biometrics industry. To this end, the Work Program 2005-2006 of the IST program will promote further research on secure and interoperable biometrics with a view to overcome technical difficulties that hamper the full development of such technologies.

Market Trends

The Italian market is in its early stages and not yet significant. Domestic producers are reasonably few and the market remains strongly fragmented. The demand for biometrics is not directly linked to GDP but is strictly correlated to security needs that are in great demand at the moment. This demand is expected to grow exponentially over the next several years.

The request of biometric devices concerns three fields: logical access for personal computers, physical access for security enhancement and surveillance. The two major customers, public administration (approximately 80 percent of the market) and private sector, have a different approach toward costs. The public administration has fewer cost constraints, particularly in the area of access control, because biometric sensors or software are a relatively inexpensive part of a greater number of more costly components. For the public administration, the reliability of the system remains the most important factor. The private sector is aware of the fact that prices are decreasing and will continue to decrease.

It is expected that iris identification systems will be in demand for high security applications. Other products that will be in most demand should include fingerprint sensor for logical access and hand geometry units for access control (forecast). Hand geography technology is considered to be more “respectful” of privacy than fingerprint technology. This is important because Italy has a stringent set of laws in the area of privacy. In addition, this is a very delicate issue with the trade unions, which have a particularly strong and influential role.

Import Market

Since the market for biometric devices is young, statistics are not available making it difficult to quantify total market size.

Many of the applications will depend on compliance with the data protection commission.

One of the most promising areas is that of access control, with particular emphasis on the public sector. Many government organizations, including ministries, intend to enhance their facility security measures. Opportunities also exist in connection to the recording of time and attendance of personnel because the public administration would like to connect access verifications with the recording of time and attendance of staff.

Taking into consideration products currently being utilized in the country, it can be estimated that the United States holds an approximate 60 percent of the market share, with foreign competitors including Sweden and France with an approximate 20 percent of the market, and Italy holding the remaining portion.

Competition

The major players in the market include Cogent (USA) for the AFIS (Automated Fingerprint Identification System), Digital Persona (USA) and Precise Biometrics (Sweden) for the generic fingerprint technology, Recognition Systems (USA) for hand geometry, Biomet Partners (Switzerland) for two-finger geometry, Identix (USA) and Cognitec (Germany) for face recognition and Iridian Technology (USA) for iris recognition. Digital Personal and Precise Biometrics are direct competitors and use similar sales techniques consisting of making personal contact with key people within the various administrations. Both sell low- to medium-cost devices that are able to increase the security of access to personal computers.

One point of strength of Precise Biometrics is the capability of the “match-on-card”, which has the highest degree of respect for data privacy because the template never leaves the smart card, and, therefore, it is practically impossible to disclose the information contained in the card.

Approximate market shares by subsector are as follows:

Logical Access

Digital Persona (fingerprint) - 30%
Precise Biometrics (fingerprint) - 30%
Other fingerprint firms – 35%
Other technologies – 5%

AFIS

Cogent - 100% of the market

Physical access (medium security)

Recognition Systems (hand geometry) – up to 50% (forecast)

Biomet Partners (two-finger geometry) – 20%

Other fingerprint firms – 25%

Other technologies – 5%

Physical access (high security)

Iridian Technology – 50% (forecast)

Fingerprint technology – 50%

Surveillance (market expanding)

Identix – 30%

Cognitic – 10%

Others – 60%

Considering that some local (European) proprietary technologies (face) have a good reputation in the market, facial products could suffer because of this European competition. To counter this competition, the key could be in highlighting proven quality and reliability. Providing case studies or current and successful application of a product is an important factor. Compliancy with privacy issues is always a key factor, and companies that demonstrate their understanding and awareness of this aspect will gain a competitive advantage. Low cost at this time is not a determining factor for high-security applications.

Distribution practices and industrial competence play a fundamental and very delicate role in the safety and security sector. Distribution channels are also undergoing transformation, moving away from traditional regional distributors to a mixed structure with establishment of company branch offices that cover most of Italy, while keeping regional distributors for some areas. There is also a growing trend for foreign firms to buy out well-established Italian firms.

U.S. companies that do not wish to operate with a direct presence should have an agent or distributor. In the biometrics field, an excellent strategy can be to establish partnerships with European-based companies.

To bid for government contracts, foreign firms must either be legally established or have an authorized representative in Italy prior to bidding. This representation is required to provide installation, training and maintenance services, especially for complex equipment. American companies are advised to seek national coverage when appointing a representative or when establishing their own sales network.

The presence of a nationwide service organization that can guarantee installation and maintenance will prove a definite advantage, especially because customers generally will require training, support and maintenance. Local manufacturers are often associated with installation,

security, consulting and service firms. An additional competitive factor can be the establishment of a call center able to provide assistance in several languages.

End Users

Major end users in the public sector include government offices (ministries, law enforcement agencies, etc.) that will enhance both physical and logical access points. In the private sector, important end users include airports, banks, large industries, and health-related service industries. At the present time, imminent opportunities exist airports. Projects in naval ports are just beginning and opportunities can be expected in this area as well.

Estimated shares of consumption of biometrics are as follows:

Public sector: 40%
Private sector: 15%
Airports: 10%
Banks: 15%
Health services: 10%
Others: 10%

*The use of biometrics in banks is only for investigative purposes. See the website www.garanteprivacy.it and refer to the recommendations of October 1st, 2001 (news section).

Sales Prospects

Best sales prospects can be expected to include hand geometry and iris recognition for the public sector's physical access needs. In the private sector, the forecast is for face recognition for surveillance purposes, and fingerprint technology for logical access. Significant developments that are likely to have an impact on market prospects will include clear data protection indications by the Italian privacy authority and policies on the use of biometrics, and large government programs such as the US Visit program and e-passport.

Market Access

While IMQ compliance certificates are not mandatory for biometric products, some government bodies may request one, particularly for iris and hand geometry devices.

The Italian market is very favorable toward U.S. companies. Other than import duties, which in the case of biometric devices is in the range of 16 percent, plus a 20 percent value-added tax (IVA), no significant trade restrictions or other non-tariff barriers exist on the import of biometric equipment.

CE (Conformité Européenne) Mark: The "CE" mark is mandatory for a wide range of products sold in the European Union (EU). In the case of biometrics, only those devices that have an incorporated electronic component will require the CE mark.

U.S. firms exporting to Italy are confronted with both national and EU standards for many products. Further, these regulations occasionally change to meet new technology and more stringent demands. Exporters can stay fully informed of the latest EU technical standards activities by contacting the National Center for Standards and Certification Information (NCSCI), a U.S. Government agency, which is part of the Department of Commerce's National Institute of Standards and Technology (NIST) and should be a first point of contact for U.S. companies attempting to determine which Italian standard or EU directive may be applicable to their products.

Market Entry

In terms of marketing and distribution strategies, for the public administration it is important to demonstrate the advantages offered by the biometric device by means of a practical presentation (including product demonstration, slides, etc.) highlighting the good functionality of the system in on-field applications. The public administration is quite open to in-office demonstrations/presentations; therefore, it may be very worthwhile to contact the various Italian ministries to inquire as to their interest in learning about new devices. An important deciding factor can be showing other biometric applications running efficiently within the public administration in other countries. For the private sector, advertising through specialized magazines could be a good vehicle, and placing the emphasis on scientific and technical aspects of the device is an excellent approach.

This report was prepared by Commercial Specialist Maria Calabria. For further information regarding the safety and security industry in Italy, and on U.S. Commercial Service Italy services, U.S. firms should contact the U.S. Commercial Service in Rome, Tel: +39 06 4674 2382; Fax: +39 06 4674 2113; Mailing address: American Embassy, PSC 59, Box 30, APO AE 09624; E-mail: rome.office.box@mail.doc.gov; Website: www.buyusa.gov/italy/en.

Key Contacts

Portal of the European Union
http://www.europa.eu.int/index_en.htm

Justice & Home Affairs (JHA):
http://www.europa.eu.int/comm/dgs/justice_home/organigramme_en.pdf

Borders and Visas
DG Justice and Home Affairs
Tel: +32 2 296 1072

Unit B3, responsible for Large-scale IT Systems
Tel: +32 2 295 4875

Biometrics for Secure Authentication

Project Manager: Dr. ir. R.N.J. Veldhuis
Faculty of Electrical Engineering, Mathematics and Computer Science
Tel.: +31 53 489 2838
Email: r.n.j.veldhuis@utwente.nl

Garante per la protezione dei dati personali (Italian Privacy authority)
Piazza di Monte Citorio, n. 121
00186 Rome, Italy
Tel: +39 – 06 696771
Fax: +39 – 06 69677785
www.garanteprivacy.it

European Biometrics Forum – composed of some of Europe's leading privacy, technology and usability experts in the field.
www.eubiometricforum.com/

There is an Italian Biometric Forum (IBF). Their website is under construction but will be available shortly. The contact at the Italian Biometric Forum (IBF) is Mario Savastano. His email is mario.savastano@unina.it

Upcoming Trade Shows /Events

Biometric Consortium Conference 2004
Arlington, Virginia, September 20-22, 2004
<http://www.biometrics.org/bc2004/>

Biometrics 2004
London, UK, October 13-15, 2004
<http://www.biometrics-2004.com/>

Events can also be found in the European Biometric Forum's website (see key contacts section).